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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/840,053	05/06/2004	Anand S. Bedekar	CE10624R	6638
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MOTOROLA, INC. 1303 EAST ALGONQUIN ROAD IL01/3RD SCHAUMBURG, IL 60196			EXAMINER TAHA, SHAQ	
			ART UNIT	PAPER NUMBER
			2146	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Docketing.Schaumburg@motorola.com
APT099@motorola.com

Office Action Summary

Application No.

10/840,053

Applicant(s)

BEDEKAR ET AL.

Examiner

Shaq Taha

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05.06/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05/27/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 5, 7 – 9, 11 - 20 rejected under 35 U.S.C. 102(b) as being anticipated by Ramasubramani et al. (US 6,314,108).

- Regarding claim 1, Ramasubramani teaches an apparatus for use in facilitating access with a distributed network, the apparatus comprising: a plurality of persistent connections to one or more servers in a network, **[Fig. 2, (Ref # 208, 210, 212, which are connections in a communication system) & (Ref # 218, 220 which are servers in the communication system)]**; and a controller that controls communications over the persistent connections, **[Fig. 2, Ref # 214, which is a gateway that has a controller that controls the communication over the connections]**;

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communication ports coupled with the persistent connections, **[Fig. 9, Ref # 916];**

where at least one of the communication ports receive requests for objects, **[Fig. 9, Ref # 922, 904, where the request is forwarded from device 922 to port of pull agent 904];**

wherein the requests are communicated over the plurality of persistent connections and the requested objects are received over the plurality of persistent connections, **[Fig. 9, Ref # 918, 924];**

and at least two of the requests are received from two different users and are communicated over the same persistent connection, **[Fig. 9, Ref # 922, 928 which are two different users, Ref # 906 is the connection].**

- Regarding claim 2, Ramasubramani teaches the apparatus wherein the controller dynamically adjusts the number of persistent connections, **[Fig. 2, Ref # 214, 216, The Multi-network gateway that controls the connections to the internet 214].**
- Regarding claim 4, Ramasubramani teaches the apparatus wherein the controller activates an additional persistent connection when an additional request is received and the existing plurality of persistent connections are in use, **[Fig. 6, Request between Ref # 204 & 210, Connections between Ref # 210 & 604, 608].**

and routes the additional request over the additional persistent connection, **[Fig. 6, where the request is routed from Ref # 204 to 210 then 604]**.

- Regarding claim 5, Ramasubramani teaches the apparatus wherein the controller distributes the requests to be communicated over the plurality of persistent connections such that the requests are routed to persistent connections having lightest loads, **[Fig. 8A, The processing load on the push agent 802 is reduced]**.
- Regarding claim 7, Ramasubramani teaches that the apparatus further comprising: a load tracker coupled with at least one of the communication ports, **[Fig. 9, Ref # 906, where the router plays the role of a load tracker]**; where the load tracker identifies which of the plurality of persistent connections has a lightest load, **[Fig. 9, Ref # 906, where the router connects the connections and checks their load]**.
wherein the controller communicates with the load tracker and routes a request for an object over a persistent connection having the lightest load according to the load tracker, **[Fig. 9, Ref # 906, which is a router that routes communication and request]**.

- Regarding claim 8, Ramasubramani teaches the apparatus wherein the controller tracks priorities of the received requests, **[Fig. 5B, Ref # 556]**; and delivers the objects to the requesting user in the order of the priority, **[Fig. 5B, Ref # 554]**.
- Regarding claim 9, Ramasubramani teaches a system for use in communicating data with devices, the system comprising: a proxy comprising: **[Fig. 2, Ref # 214, which the Multi-Network Gateway is considered to be a Proxy]**;
a controller providing at least some control of the proxy, **[Fig. 3, Ref # 302, 304 are Push and Pull Agents to control the Proxy]**;
a memory coupled with the controller, **[Fig. 12A, Ref # 1210, where storing the package in a session data which is memory]**;
the memory comprises a cache that stores data, **[Fig. 3, Ref # 322, which**
and a load tracker coupled with the controller, the load tracker provides load information to the controller, **[Fig. 8B, Ref # 852, which is an Air link Framework that works as a load tracker for the controllers # 802, 804]**;
and a plurality of persistent connections coupled with the proxy, where the plurality of persistent connections are connections over a distributed network that are activated and maintained by the proxy, **[Fig. 6, Connections between Ref # 602 & 208, between # 602 & 216 are persistent connections]**.
- Regarding claim 11, Ramasubramani teaches a system wherein the proxy further comprises a persistent connection controller coupled with the plurality of

persistent connections, **[Fig. 2, Ref # 214, which is a gateway that has a controller that controls the communication over the connections];**

the persistent connection controller activates an additional persistent connection when an additional request is received while none of the existing persistent connections are idle, **[The air link enable is used to indicate whether or not a particular air link should be activated during initialization of the multi-network gateway, (Column 7, line 53)].**

- Regarding claim 12, Ramasubramani teaches a system wherein the proxy further comprises: an object identification evaluator coupled with the controller, the object identification evaluator identifies a user associated with a received object, **[identifying an incoming request for data from the Internet from a first wireless communication device, (Column 3, line 24)].**

and an object router coupled with the object identification evaluator, **[Fig. 9, Ref # 906];**

where the object router routes the received object to the user as identified by the object identification evaluator, **[Fig. 9, Ref # 906, which is a router that routes requests].**

- Regarding claim 13, Ramasubramani teaches a method for use in providing client devices with access to a distributed network, the method comprising: establishing a plurality of persistent connections to servers over a distributed

network, **[Fig. 2, (Ref # 208, 210, 212, which are connections in a communication system) & (Ref # 218, 220 which are servers in the communication system)]**;

maintaining the plurality of persistent connections as active, **[Fig. 8A, Ref # 810, where the router maintains the requests]**;

receiving a plurality of requests for objects, **[Fig. 1, the network gateway 106 is to receive data requests from the carrier network 104]**;

and communicating the plurality of requests over the plurality of persistent connections where a first request and a second request are communicated over a first persistent connection, **[Fig. 2, the request moves from ref # 202 over a carrier network through a persistent connection Ref # 208 through the proxy and controller Multi-Network Gateway]**.

- Regarding claim 14, Ramasubramani teaches the method wherein the first request is received from a first client device and the second request is received from a second client device, **[Fig. 8A, Ref # 204 & 206]**.
- Regarding claim 15, Ramasubramani teaches that the method further comprising: adjusting the number of persistent connections that are maintained as active, **[Fig. 8A, Ref # 810, where the router maintains the requests and the connections]**.

- Regarding claim 16, Ramasubramani teaches that the method further comprising: monitoring a second persistent connection; and releasing the second persistent connection when the second persistent connection is idle for a predefined period of time, **[The route table 916 can also associate each connection with the same port. Using the route table 916, the NB-router 906 can route information between the appropriate air links and the SMSC units, (Column 12, line 60)]**.
- Regarding claim 17, Ramasubramani teaches that the method further comprising: receiving an additional request, **[Fig. 1, the network gateway 106 is to receive data requests from the carrier network 104];**
determining loading on each of the existing persistent connections, **[Fig. 8A, The processing load on the push agent 802 is reduced];**
activating an additional persistent connection when the additional request is received while all of the existing persistent connections are loaded beyond a threshold limit, **[The air link enable is used to indicate whether or not a particular air link should be activated during initialization of the multi-network gateway, (Column 7, line 53)]**;
and routing the additional request over the additional persistent connection, **[Fig. 8A, Ref #810, where the router maintains the request and the connections]**.

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- Regarding claim 18, Ramasubramani teaches that the method further comprising: receiving a first object, **[receiving a notification from the wired network that is to be directed to a first wireless communication device, (Column 19, line 54)]**;
determining that a third request is associated with the received first object, **[determining a first network driver within the network gateway that is associated with the first wireless communication device from a plurality of network drivers, (Column 19, line 18)]**;
and caching the first object until a second object is received that is associated with a fourth request having a higher priority than the third request, **[Fig. 12A, Ref # 1210]**.
- Regarding claim 19, Ramasubramani teaches that the method further comprising: receiving a third request, **[Fig. 2, Ref # 206 is a third client that sends third request]**;
determining when one of the plurality of active persistent connections is idle, **[The air link enable is used to indicate whether or not a particular air link should be activated during initialization of the multi-network gateway, (Column 7, line 53)]**;
and routing the third request to an idle persistent connection when one of the plurality of persistent connections is idle, **[Fig. 8A, Ref #810, where the router maintains the request and the connections]**.

- Regarding claim 20, Ramasubramani teaches that the method further comprising: receiving an additional request, **[Fig. 2, Ref # 206 is a third client that sends third request]**;
determining which of the plurality of persistent connections has the lightest load, **[Fig. 2, Ref # 208, where the carrier is the persistent connection with the load]**;
and routing the additional request over a persistent connection with the lightest load, **[Fig. 8A, Ref #810, where the router maintains the request and the connections]**.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 & 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramasubramani et al. (US 6,314,108) as applied to claims 1 above, and further in view of Boucher et al. (US 7,167,926).

- Regarding claims 3 & 10, Ramasubramani teaches a centralized network access for wireless network carriers providing network access to wireless communication devices, **(See Abstract)**.

Ramasubramani further teaches network gateway (or proxy server) that provides access to a network of computers to various wireless network carriers having different wireless network characteristics, **(See Abstract)**.

Ramasubramani et al. differs from the claimed invention is that an idle timer that is coupled with a controller is not taught in Ramasubramani et al.

Boucher teaches a device provides a fast-path that avoids protocol processing for most messages, greatly accelerating data transfer and offloading time-intensive processing tasks from the host CPU, **[Abstract]**.

Boucher further teaches an idle timer coupled with the controller, **[Column 67, line 60]**; wherein the controller activates the idle timer when a first persistent connection becomes idle, and terminates the first persistent connection when a predefined time period expires before a request for an object is communicated over the first persistent connections, **[Column 67, Line 59, where maintaining the idle timer means to activate it]**.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Ramasubramani by including an idle timer as taught by Boucher.

One of ordinary skill in the art would have been motivated to make this modification in order to provide the advantage of maintaining an idle timer.

- Regarding claim 6, Boucher teaches that the apparatus further comprising: a cache coupled with the communication ports, **[Column 3, line 44, where the CPU Cache is coupled with a communication]**;
wherein a first received object is stored in the cache when a first request associated with the first object has a lower priority than a second request for a second object that has not been received, **[Column 3, line 44, where the CPU Cache is a storage for instructions or data or requests]**.

Conclusion

The following prior art made of record and not relied upon is cited to establish the level of skill in the applicant's art and those arts considered reasonably pertinent to applicant's disclosure. See **PEP 707.05(c)**.

The following are analogous art because they are from the same field of endeavor of Allocation of Common Persistent Connections Through Proxies:

- Ramasubramani et al. Paten No: (US 6,314,108)
- Boucher et al. Paten No: (US 7,167,926)
- Erickson et al. Paten No: (US 6,412,009)
- Gidwani et al. Paten No: (US 2006/0168111)
- Hunter et al. Patent No: (US 6,865,608)
- Landsman et al. US Pub No: (US 2002/0129102)
- Lev Ran et al. US Pub No: (US 2004/0255048)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Shaq Taha** whose telephone number is 571-270-1921. The examiner can normally be reached on 8:30am-5pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Jeff Put** can be reached on 571-272-6798.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published

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applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

10/01/07

S. Taha

A handwritten signature in black ink, appearing to be 'S. Taha', located to the right of the typed name.